

ABSTRACT OF THE DISCLOSURE

A new calibration scale is proposed for as a substitute for density values of a densitometer or equivalent neutral densities. A color reproduction range of a color reversal film is set on an xy chromaticity diagram. On the xy chromaticity diagram, there are established three straight lines passing through a chromaticity point corresponding to a standard white illuminant and principal wavelengths relative to primary colors R, G, B. Vertexes of a triangle containing the color reproduction range are determined on the three straight lines. Chromaticity values at the vertexes of said triangle are determined as primary colors R, G, B. Block dye density values c , m , y corresponding to the primary colors R, G, B are determined according to the equations $R = 10^{-c}$, $G = 10^{-m}$, $B = 10^{-y}$. The determined block dye density values c , m , y are used as a new calibration scale. Since the block dye density values have properties similar to conventional density values as compared with colorimetric values, conventional image processing resources can be utilized.